

# CONTRIBUTIONS TO THE FLORA OF WESTERN AUSTRALIA.

No. IV.

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(Read 13th December, 1921.)

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## *Darwinia thryptomenioides*, sp. nov.

A shrub with slender erect virgate branches. Leaves opposite, erect, semi-terete or concave, slightly thickened upwards, obtuse, about one line long. Flowers almost sessile in the upper axils, close together so as to form an apparently terminal head of five flowers or less. Calyx tube cylindrical, turbinate, 10 ribbed; lobes semi-orbicular, under one line long fringed with spreading hairs. Petals white, orbicular, one and a-half lines in diameter. Stamens 10, one line long, alternating with flattened acuminate staminodia of the same length. Anthercells globular, the connective gland smaller. Style about a quarter of an inch long tapering upwards; stigma capitate, with spreading hairs. Ovules four, on a short lateral placenta. Seed one, Globular.

Locality—Sandplains South of Westonia.

Collectors—Herbert and Wilson, No. 110.

Date—November, 1920.

This species comes between *D. thymoides*, Benth., and the eastern *D. taxifolia*, A. Cunn., and is easily distinguished from either by the ten ribbed calyx.

## *Melalenca coronicarpa*, sp. nov.

A straggling but rigid shrub of four feet, the young shoots pubescent. Leaves alternate, ovate-lanceolate, or lanceolate, acuminate, acute and pungent pointed, broad and rounded at the base, rigid, flat, striate, up to half an inch long. Flowers white in lateral clusters of up to 12 on a very short pubescent rachis. Calyx tube cylindrical, pubescent, about one line long, the lobes not half as long, triangular, acuminate, pubescent, with a scarious edge. Petals ovate, about a line and a-half long. Staminal bundles three to four lines



long, the claws about the same length as the petals. Fruiting calyx thick, about two lines broad, surmounted by persistent pointed woody calyx lobes.

Locality—Bruce Rock, on the road to Merredin.

Collectors—Wilson and Herbert, No. 152.

Date—November, 1920.

The species comes nearest to *M. undulata*, Benth. The name is in allusion to the appearance of the persistent calyx lobes.

*Pultenaea astipulea*, sp. nov.

A shrub up to two feet high with numerous erect pubescent branches arising from the base. Leaves linear oblong, obtuse, mucronate with revolute margins, pubescent on the upper surface, below, mostly two lines long, but those on the old branches up to four lines. Stipules absent. Flowers on short pedicels up to about 25 on a terminal head, surrounded by a few lanceolate acuminate bracts a little longer than a line in length. Bracteoles hairlike, hispid, about one line long. Calyx pubescent, nearly three lines long, the two upper lobes larger than the others, rounded obtuse, the others acuminate acute, as long as the tube. Standard about twice as long as the calyx, lower petals shorter. Ovary villous. Pod ovate, three lines long.

Locality—Totadgin.

Collectors—Wilson and Herbert, No. 118.

Date—November, 1920.

*Pultenaea drummondii* is its nearest relative.

*Jacksonia hemisericea*, sp. nov.

Stems erect, about one foot high, virgate, rush-like, branched, the barren branches glabrous. Flowers rather distant on pedicels of one to one and a-half lines long, the axis silky pubescent, and six to eight inches long. Bracteoles small, linear-lanceolate, below the calyx. Calyx silky-pubescent, about three and a-half inches long, the tube almost one line long, without prominent ribs. Standard large, four lines diameter, the keel shorter (about three lines). Ovary hirsute, stipitate; ovules two.

Locality—Sand plain at Merredin.

Collectors—Herbert & Wilson, No. 47.

Date—November, 1920.

This species comes near *J. restioides*, Meissn., but the silky pubescence shows an approach to the type of *J. lehmanni*, Meissn. The name is in allusion to the half sericeous appearance of the plant, owing to the almost equal numbers of silky pubescent flowering branches and glabrous barren ones.



## RUTACEAE.

*Microcybe pauciflora*, Turez, var. *uniflora*, var. nov.

Glabrous variety with one flower in the head; petals slightly over one and a-half lines long. Flowering in November.

Locality—Sand plain at Westonia.

Collectors—Herbert & Wilson, No. 111.

Date of collection—November, 1920.

*Daviesia uniflora*, sp. nov.

A shrub two feet in height, the branches hirsute with soft spreading hairs. Leaves rather crowded,  $\frac{3}{8}$ in. or less in length, obtuse with a pungent point up to a line long, marginate, the margins and the prominent midrib of the lower side, and the lamina of the young leaves bearing spreading hairs. Peduncles slender, glabrous, shorter than the leaves except at the tips where the leaves are smaller, and bearing one pedicillate flower. Bracts small. Pedicels about a quarter of an inch long. Calyx one and a-half lines long, glabrous, the teeth shorter than the tube, the two upper ones united. Standard about twice as long as the calyx. Keel nearly as long. Pod half an inch long, slightly more than three lines broad, and acuminate.

Locality—Yoting, in sand plain.

Collectors—Herbert & Wilson, No. 174.

Date—November, 1920.

This species resembles *D. mollis* in the shape of the leaves, but differs chiefly in the one-flowered inflorescence. It does not fall under any of the series proposed by Bentham, unless it be regarded as a member of the Umbellatae with the umbels reduced to a single flower.

*Simsia latifolia*, R. Br. (*Stirlingia latifolia*, Steud; *Simsia latifolia*, var. *gracilis*, Ostf.).

Bentham (*Flora australiensis*, V. 358) noted the great variation in ramification, size and breadth of the leaf segments and the size of the flowers in this species, there described under *Stirlingia latifolia*, Steud. C. H. Ostenfeld (Contributions to Western Australian Botany, Part III., in Det. Kgl., Danske Videnskabernes Selskab, Biologiske Meddelelser III., 2, 1921, p. 50) has proposed a new variety (var. *gracilis*, Ostf.) for the narrow-leafed form. The specimens on which this is founded are from the Swan River: Preiss (1839), No. 767; Cecil Andrews (1901), No. 751; Ostenfeld (1914), No. 681; and a specimen without a collector's name is at Kew from the Swan



River Colony (1842). Ostenfeld shows photographs of his type from King's Park. It is the common form, but all stages intermediate between this and the typical broad-leaved form are to be found, often on the same bush. The simpler panicle is also very variable, and is not constant for the narrow-leaved forms. Occasionally it is almost twining. The variety *gracilis* of Ostenfeld, in view of these facts, is not strong enough to be regarded as a distinct variety. The name *latifolia* is not an appropriate one, as the narrow-leaved forms are more common in some localities than the typical form. As a plant becomes older and weaker, it frequently becomes more straggling, and the leaves become narrower. When crushed, the leaves have a very distinct odour, which Mr. Marr, of Perth, has proved to be due to the presence of acetophenone.

*Logania tortuosa*, sp. nov.

A shrub of about six inches with glabrous tortuous branches, the branches opposite, or in threes, terete and rush-like, faintly sulcate. Leaves minute, scale-like. Flowers solitary and opposite in the upper axils, the pedicels about one line long. Calyx segments acuminate, acute, minutely ciliate, and a little over a line long. Corolla campanulate, pubescent, the tube shorter than the calyx segments, the lobes one and a-half lines long, very spreading. Stamens inserted in the sinus of the lobes, the anthers oblong. Ovary sparingly covered with glanular hairs, the stigma ovoid-oblong.

Locality—Sandplain, Yoting.

Collectors—Herbert & Wilson, No. 162.

Date—November, 1920.

*Logania tortuosa* comes between *L. nuda*, F. v. M., which it resembles in habit, and *L. spermacoea*, F. v. M. The name refers to the tortuous branches.

*Gastrolobium spinosum*, Benth., "Prickly Poison."

This is the commonest species of *Gastrolobium* in the South-West and shows considerable variation. Benthams describes it as a shrub of two to four feet, but it often attains 10 or 12 feet, as at Toodyay, Kelmscott and elsewhere. Five varieties have been proposed, most of them based on the shape of the leaves:

var. *triangulare*, Benth.—Leaves triangular cordate, quite entire with pungent points at the angles. Flowers smaller, the racemes looser and more pedunculate.

var. *angustum*, E. Pritzel.—Leaves narrow, triangular, three to five-toothed, about 12 x 35 mm.

var. *microphyllum*, Spencer Moore.—Leaves small, lanceolate hastate, the lateral lobes rounded and unarmed or provided with a weak spine; 14-17 mm. long, 5-7mm. broad close to the base.



var. *inerme*, Spencer Moore.—Leaves cordate-lanceolate, quite entire, 20-25 mm. long, 10-12 mm. broad.

var. *trilobum*, Spencer Moore.—Leaves small, broadly ovate-cordate three- (or very rarely five-) lobed, the lobes extended into a rigid spine, about 14 x 13 mm.

These varieties depend mainly on the size of the leaves, a very unsound character for so variable a species as *Gastrolobium spinosum*. It is only by a field study of the plants that the true value of the different forms can be ascertained. With the exception of var. *triangulare* and var. *trilobum*, the forms shade into one another so imperceptibly that they cannot be regarded as varieties. Often two forms may be found on the same bush. For example, in a specimen collected by E. Kelso, in the Coolgardie district in 1902, the leaves on some of the twigs have the leaves described for var. *microphyllum*, while twigs not six inches below have the characters assigned to var. *angustum*, and the narrow type of leaf is common on the same bushes as the typical cordate type.

Two varieties, var. *triangulare*, and var. *trilobum*, are sufficiently well defined to be retained, but in view of their variability and their gradual merging into one another, the others must be included as forms of the typical species and not as varieties. Four forms are proposed:

1. *typicum*.—This is the typical form of the Darling Ranges. It sometimes reaches about 12 feet in height, and has leaves, on an average, one inch broad at the base and one inch long, but they may be three inches each way in luxuriant specimens (Boyanup, J. Simmons, 1919), or much smaller in stunted specimens.

2. *Angustum* (including var. *angustum*, E. Pritzel).—The plants are rather lower in stature than forma *typicum*, and the leaves narrower, generally one-two inches long by half-one inch broad. Pritzel's variety is based on specimens with leaves "narrow, triangular, three to five-toothed." The common examples are about half inch by one and a-quarter inches, and one to five-toothed. They may, however, be unarmed (Wagin, E. C. Leggo, 1921). This form passes on the one hand into forma *typicum*, and on the other into forma *parvifolium*.

3. *parvifolium* (including var. *inerme* and var. *microphyllum*).—This includes the forms with leaves smaller than those of *F. angustum*. They vary in shape from lanceolate hastate to lanceolate cordate, and in size from quarter of an inch broad by half an inch long, to half an inch broad and nearly one inch long. It passes into *F. angustum* through spiny-leaved forms (e.g., Coolgardie, E. Kelso, 1902; Woodanilling, Fidock, 1916; Wagin, H. Stewart, 1916).